

УДК 308.832.23

DOI [10.15826/jtr.2017.3.2.035](https://doi.org/10.15826/jtr.2017.3.2.035)

BIBLIOMETRIC ANALYSIS OF THE LITERATURE ON TAX EVASION IN RUSSIA AND FOREIGN COUNTRIES

Ekaterina N. Nevzorova

Baikal State University, Irkutsk, Russia

ORCID: [0000-0002-4802-5448](https://orcid.org/0000-0002-4802-5448)

Anna P. Kireenko

Baikal State University, Irkutsk, Russia

ORCID: [0000-0002-7860-5929](https://orcid.org/0000-0002-7860-5929)

Roman A. Sklyarov

Baikal State University, Irkutsk, Russia

ABSTRACT

The study of tax evasion generally has common directions in all countries. However, there is also some national specificity, conditioned by the level of development, features of the economy or traditions. The study of this specificity is the subject of this work. This paper continues the bibliometric analyzes of the publications relating to the problem of tax evasion starting in the Journal of Tax Reform in 2016. We set the goal of comparing Russian-language and English-language scientific publications to identify the characteristics of the tax evasion study as a sphere of scientific knowledge using bibliometric methods. This article analyzes the Russian and English language publications relating to the problem of tax evasion published in eLIBRARY.RU, RePEc and SSRN till the end of 2016. The study was conducted by comparing the publication activity by types and the period of publications. In the first stage of the study we did the qualitative content analysis by identification the common themes discussed in the publications. Then, a quantitative analysis was conducted by comparing the publications on a particular topic from each source. We used bibliometric analysis method for the quantitative and bibliographic mapping method to visualize the results of the research. Calculations were performed using the software QDA Miner v.5.0 with WordStat module v.7.1.7. As a result, the study concluded that tax evasion is comprehended mostly as a criminal problem in Russia. It means that scientists and society as a whole are not ready to deal with socio-demographic and moral-ethical issues of tax evasion and to take into consideration institutional environment and market conditions to counteract the phenomenon

KEYWORDS

Tax evasion, bibliometrics, bibliometric analysis, content analysis, scientific publications, electronic publications database

HIGHLIGHTS

1. Bibliometric analyzes proved the presence of considerable differences in studying of tax evasion in Russian language and English language scientific literature
2. Tax evasion is comprehended mostly as a criminal problem in Russian language literature opposite its reflection as moral-ethical problem in English language literature
3. Russian language scientific literature does not ready to deal with socio-demographic and moral-ethical issues of tax evasion and to take into consideration institutional environment and market conditions of tax evasion counteraction
4. The most promising areas for studying tax evasion in Russia are methodological issues; institutional environment; socio-demographic and moral-ethical aspects of tax evasion

БИБЛИОМЕТРИЧЕСКИЙ АНАЛИЗ ЛИТЕРАТУРЫ ПО УКЛОНЕНИЮ ОТ УПЛАТЫ НАЛОГОВ В РОССИИ И ЗАРУБЕЖНЫХ СТРАНАХ

Е. Н. Невзорова

Байкальский государственный университет, г. Иркутск, Россия

ORCID: [0000-0002-4802-5448](https://orcid.org/0000-0002-4802-5448)

А. П. Киреенко

Байкальский государственный университет, г. Иркутск, Россия

ORCID: [0000-0002-7860-5929](https://orcid.org/0000-0002-7860-5929)

Р. А. Скляр

Байкальский государственный университет, г. Иркутск, Россия

АННОТАЦИЯ

Изучение уклонения от уплаты налогов в разных странах имеет много общего. Однако, в разных странах изучение данного явления имеет определенную специфику, обусловленную уровнем развития, особенностями экономики или традициями. Исследование такой специфики и является целью данной статьи. Статья продолжает библиометрический анализ проблемы уклонения от уплаты налогов, первые результаты которого были опубликованы в данном журнале в 2016 г. Была поставлена задача сравнения русскоязычных и англоязычных научных публикаций для выявления специфики изучения уклонения от уплаты налогов, как научной проблемы с применением библиометрических методов. Для исследования использованы научные публикации по теме уклонения от уплаты налогов на русском и английском языках, имеющиеся в базах данных eLIBRARY.RU, RePEc и SSRN на конец 2016 г. На первом, качественном этапе исследования проведен контент анализ ключевых слов публикаций для идентификации совместного использования терминов и определения общей тематики для всей выборки текстов. Далее проведен количественный анализ путем сравнения распределения публикаций по отдельным темам. Для визуализации результатов анализа использованы методы библиометрического анализа и картирования. Для анализа текстов использована программа QDA Miner v.5.0 с модулем WordStat v.7.1.7. Исследование показало, что уклонение от уплаты налогов в России, в отличие от англоязычной научной литературы, воспринимается в основном как проблема нарушения закона. Это означает, что научное сообщество в России и российское общество в целом не готовы учитывать социально-демографические и морально-этические аспекты уклонения от уплаты налогов. В русскоязычных научных публикациях совершенствование институциональной среды и развитие рыночных условий не рассматривается как способ противодействия уклонению от уплаты налогов.

КЛЮЧЕВЫЕ СЛОВА

Уклонение от уплаты налогов, библиометрия, библиометрический анализ, контент-анализ, научные публикации, базы данных

ОСНОВНЫЕ ПОЛОЖЕНИЯ

1. Библиометрический анализ доказал наличие существенных отличий в изучении уклонения от уплаты налогов в русскоязычной и англоязычной научной литературе
2. В русскоязычной научной литературе отражается восприятие уклонения от уплаты налогов как криминологической проблемы в отличие от ее восприятия как морально-этической проблемы в англоязычной научной литературе
3. В русскоязычных научных публикациях не исследуются социально-демографические и морально-этические аспекты уклонения от уплаты налогов, а совершенствование институциональной среды и развитие рыночных условий не рассматриваются как способ противодействия этому явлению
4. Наиболее перспективными для изучения в России являются методологические аспекты уклонения от уплаты налогов, институциональная среда, социально-демографические и морально-этические аспекты уклонения

Introduction

The International Bureau of Fiscal Documentation (IBFD) defines tax evasion as intentional unlawful behavior, or the behavior of a person who intentionally violates tax laws in order to avoid paying taxes, for example, deliberate underreporting of income or overstating tax deductions. In the OECD tax dictionary, tax evasion is defined as illegal actions as a result of which tax liabilities are hidden or ignored.

In the Russian juridical literature, tax evasion is defined as a form of reduction in tax and other mandatory payments, in which the taxpayer intentionally or recklessly avoids paying taxes or reduces the amount of his tax obligations with violation of the norms of the current legislation.

The beginning of modern trends in the study of tax evasion was laid down in the paper “Income tax evasion: a theoretical analysis” by M. Allingham and A. Sandmo [1], who adapted the model of the criminal choice of G. Becker [2] to the economic aspects of tax evasion. In accordance with their model (A-C model), taxpayers can choose two strategies for distributing their income – risky tax evasion or safe tax payment. This model has been widely developed in numerous neoclassical models, supplemented by various factors and assumptions. Some areas of research arouse the particular interest: the study of the relationship between the supply of labor and tax evasion, uncertainty and tax evasion, the shadow economy and tax evasion [3].

The neo-institutional theory, which views tax evasion as deforming tax rules (when state rules are replaced by informal rules that in practice have a form of tax evasion), also contributed to the theory’s avoidance of tax payment.

Currently, tax evasion is also being studied in the behavioral and experimental economy. Unlike the neoclassical approach, based on the paradigm of free, rational and unlimited choice of a taxpayer, behavioral economics considers the psychological factors and socio-cultural conditions impact on tax evasion.

In the behavioral economy, two areas of tax evasion can be distinguished: models that use the theory of “un-expected utility” (based on the assumption that taxpayers tend to overestimate the probability of verification) and models that include various aspects of social interaction in the traditional scheme.

The experimental methods used in the behavioral economy makes it possible to determine the dependence of tax evasion on social norms, prestige considerations, psychological factors and group effects.

The study of tax evasion generally has common directions in all countries. However, there is also some national specificity, conditioned by the level of development, features of the economy or traditions. The study of this specificity is the subject of this work.

This paper continues the bibliometric analysis of the publications relating to the problem of tax evasion started in the issue no. 3, vol. 2, 2016 of the *Journal of Tax Reform*. The previous article explored to what extent the scientific publications on tax evasion correspond to practical issues discussed among the stakeholders in Russia and was conducted by comparing the publication activity by the types and the period of publications. That study shows that the theme of tax evasion is equally popular between scientific community, business community and public authorities in Russia. Thus, bibliometric analysis techniques can be used to research the problem of tax evasion in Russia. In this part of the research we set the goal of comparing Russian-language and English-language scientific publications to identify the characteristics of the study of tax evasion as the sphere of scientific knowledge using bibliometric methods.

Method of the study

Bibliometric methods are used for two main purposes: analysis of the effectiveness of scientific work, and mapping of science. The analysis of the effectiveness of scientific work is aimed at evaluating the results of the research and publications of individuals and organizations. The mapping of science is aimed at identifying the

structure and dynamics of scientific fields. Bibliometric methods are useful for the preparation of review articles, they present quantitative evidence in the subjective evaluation of literature.

A detailed analysis of information about the usage of bibliometric methods in the Russian scientific literature, given in a study by I. Y. Popov, led to the conclusion that bibliometric in the overwhelming majority of Russian studies is used to compare the results of scientific work of individual authors, organizations, scientific fields; and there are very few studies that focus on identifying new areas of knowledge, especially at intersections of different subject areas [4].

From several existing bibliometric methods used for mapping science [5; 6], we selected the analysis of joint usage of words [7] – this is a method of content analysis [8], using the words of publications to identify the structure of the science field. When carrying out such a content-analysis, names, keywords, annotations or full texts of publications can be used. This method directly studies the contents of publications to measure their similarity and build a map of the scientific field.

Based on the stages of bibliometric analysis, identified by W. Glänzel [9, p. 195] and M. A. Akoyev [10, p. 166], our research includes the following consecutive stages: (Table 1).

Table 1

Structure of the study

Steps of bibliometric analysis	Research question	Application in the research
Statistical analysis / Profile building	Who?	Subject area: «tax evasion», presented in the selected repositories of scientific papers
Temporal analysis	When?	Analysis the dynamics of publications for all years presented in selected repositories
Geospatial analysis	Where?	The distribution the publications in different journals
Thematic analysis	What?	Content analysis of the keywords indicated in the articles on the studied topic

In this paper, the results of the network analysis are not presented because the problem is narrowly formulated and it is unlikely that the results obtained are of significant research interest. Instead, we present the results of the comparative analysis conducted to reveal the similarities and differences in the aspects of the articles' issues (topics extracted as a result of content analysis) for Russian-language and English-language articles.

In order to conduct the analysis, we selected the works located into repositories (online archives) for academic research.

The domestic source used as a basis for analysis is eLIBRARY.RU. eLIBRARY.RU is the largest electronic scientific publications library in the Russian Federation, it is integrated with the Russian Scientific Citation Index (RSCI) that is a free public tool for measuring the publication activity for scholars and organizations. Currently eLIBRARY.RU users have access to the abstracts and full texts of more than 24 million academic works, including electronic versions of more than 5 300 Russian scientific and technical journals. The total number of registered institutional users (organizations) is more than 2 800. The total number of registered individual users is about 1.7 million (from 125 countries)¹.

Two international resources were also used for the analysis: RePEc and SSRN (the largest repositories in the field of economics and other social sciences).

Research Papers in Economics (RePEc) is the largest decentralized database of working papers, journal articles and software components. To date more than 1 800 archives from 89 countries have contributed about 2 million research papers from 2 300 journals and 4 300 series of working documents to this database. About 48,000 authors are registered in RePEc².

The Social Science Research Network (SSRN) is the leading repository in the field of social sciences and humanities. It contains more than 718 000 research works

¹ Available at: http://elibrary.ru/elibrary_about.asp

² Available at: <http://repec.org/>

by more than 331 000 researchers in 24 disciplines³. In July 2012, it was first in the ranking of open access web repositories by Ranking Web of Repositories⁴, and now (after the purchase of SSRN by Elsevier) it is presented in the section “Portals” in this rating, where in January 2017 it took the third place⁵, following Academia.edu and ResearchGate. Since Academia.edu and ResearchGate are social networks for academics, we do not investigate them in the present paper – we chose a repository available for an unlimited number of users. (Although the Academia.edu network can register not only university staff and students but also independent researchers.)

For the purpose of the study we selected articles and other types of research papers from repositories which contain the target word combination (“tax”, “evasion”) in their title from 2013 to 2016. The search was carried out taking into account morphology (in Russian). The results obtained at the end of January 2017 are presented in Table 2. It can be noted, that there are a smaller number of publications about tax evasion in the Russian academic literature, than in international resources.

Table 2

**Conditions and results
of the search in repositories**

Conditions of the search in repositories	Quantitative results of the search		
	eLIBRARY.RU	SSRN	RePEc
Title	380	354	1 009
Keywords	455		1 314
Abstract	686		1 853
Title + Keywords	680		
Title + Keywords + Abstract	1 069	1 143	
<i>The Search for a phrase in quotes</i>	–	327	1043

The aspects of the analyzed area are revealed through the content analysis of the publications’ keywords [11–13]. It was implemented by the instrumentality

³ Available at: <https://www.ssrn.com/en/>

⁴ Available at: <http://www.ssrn.com/update/general/awards.html>

⁵ Available at: http://repositories.webometrics.info/en/top_portals

of software QDA Miner v.5.0 with Word-Stat module v.7.1.7 which is developed by Provalis Research (Montreal).

Results of thematic analysis

The selected sample contains the papers published from 2013 to 2016 which contain words “tax” and “evasion” in their titles. The sample characteristics are shown in Table 3.

Table 3

**The Number of papers containing
the words “tax” and “evasion”
in their titles from 2013 to 2016
in the different repositories**

Repository	The Number of papers	The Number of papers with a list of keywords
eLIBRARY.RU	164	145
RePEc	200	180
SSRN	113	97

At the first step of the study we created exclusion dictionaries and categorization dictionaries.

Keywords for search (as well as the forms of these words for the Russian-language dictionary) and the words in other languages were excluded from the content analysis.

Words were included in the categorization dictionaries in accordance with the constraints imposed by the purposes of further use for factor analysis. According to the rules of factor analysis, the following quantitative restriction is a prerequisite: the number of observations must be at least twice as large as the number of variables. Suchwise we quantified the maximum possible number of variables in each dictionary (number of words / categories). The words were included in categorization dictionaries according to the following principle: to include the maximum possible number of words, taking into account that all words with one frequency of use should be included. The description of the dictionaries is given in Table 4.

We have tested the composed dictionaries of categories for compliance with Zipf’s law (graphically) [14]. Thus, we checked how “dictionaries” of keywords inherent to the analyzed topic are

“developed” (that is, how much they correspond to the regularities in the frequency distribution of words in a natural language). The result is shown in Figure 1.

The diagram demonstrates the fact that the frequencies of words in categorization dictionaries are distributed according to Zipf’s law.

Table 4

The description of the dictionaries used in the study

Dictionary characteristics	Type of dictionary	
	Russian dictionary (used to analyze articles from eLIBRARY.RU)	English dictionary (used to analyze articles from RePEc and SSRN)
The principles to form the exclusion dictionaries	«tax», «evasion» and forms of this words in Russian; words in all languages, except Russian	«tax», «evasion»; words in all languages, except English
Maximum number of words in the categorization dictionary	145/2 = 72.5 72 words	(180 + 97) / 2 = 138.5 138 words
Number of words included in the categories dictionary (in fact)	66	78
Minimum frequency for word usage for words from the dictionary categories (in fact)	4	6
Coverage of the categorization dictionary		
Total number of words (token)	3 330	2 615
Total number of word forms (type)	516	682
Type/Token Ratio	0,155	0.261
Total words excluded (including words in other languages)	1 945	740
Percentage of words excluded, %	58.4	28.3
Average number of words in a list of keywords to one article	22.8	9.4
Percentage of keyword lists covered by categorization dictionary, %	86.3	76.0

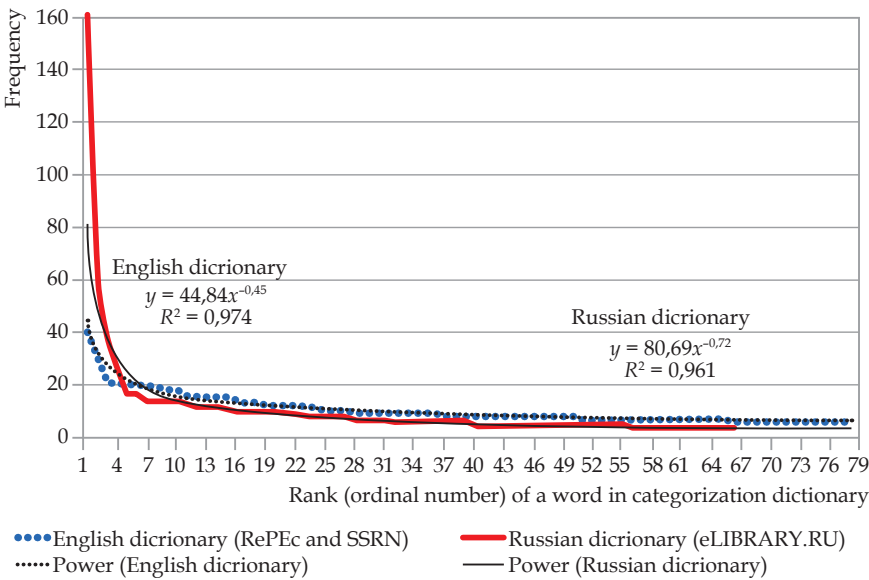


Figure 1. Zipf’s law: the frequencies of words in categorization dictionaries

Comparison of the categorization dictionaries shows the main differences between analyzed aspects in the Russian-language and English-language scientific literature in the considered field. Similar reasoning is the basis to calculate indicator TF-IDF ("term frequency – inverse document frequency") [15, p. 324]. TF-IDF is a statistical measure used to evaluate the importance of a word in the context of a document that is a part of a collection of documents. The weight of a word is proportional to the number of this word usage in the document, and inversely proportional to the frequency of the word usage in other documents of the collection. Thus, the words used frequently in certain document and rarely in other documents have great weight. Due to the significant differences in the Russian-language and English-language dictionaries for each topic, the results of the analysis are not reported here, but these differences will be reflected at the extraction of the topics of the texts.

At the second stage, we implemented the extraction of the texts' topics. The extraction of topics is carried out through the factor analysis method. Words or phrases or some categories which are assigned by the researcher can be accepted as variables for the analysis. The factors (hidden variables) are the topics (extracted) which are defined based on the values of variables (i. e. frequency of variable usage) in the unit of analysis [16].

Using the WordStat module is possible to extract topics in two ways: without the inclusion of a categorization dictionary (words are extracted in the forms that are used in texts; phrases are also extracted); and with the inclusion of the dictionary categories. In this way, the problem of extracting topics is connected with the possibility of lemmatization. For the Russian language, this option is not available at the version of the used WordStat, so the ability to change the word form is achieved by setting categories manually. Due to the described limitations, the extracted topics with the option "without the inclusion a categorization dictionary" are used in our content analysis not directly for quantitative analysis of texts, but as reference in-

formation taken into account when filling out the categories dictionary.

As unit of analysis for extracting the topics by usage WordStat module can be taken: a document (i. e. all texts used for analysis); a paragraph; a sentence. Since in our research we identify the dominated topics of publications in the keyword lists, we use paragraphs as a unit of analysis (where a paragraph is a list of keywords for one article).

The factors were extracted by the method of principal component analysis. The rotation of the factors was carried out by the varimax method with Kaiser normalization, i. e. the decision on the factors number was accepted on the basis of eigenvalue criterion as most widely used one [17]. Thus, there were selected factors having eigenvalue equal or greater than one. Factor loads more than 0.4 were taken as significant for interpretations.

The result of extraction (listed topics) reflects the joint occurrences of certain keywords in one list (keywords for one article). Studying extracted topics is of interest in relation to understanding the issues which are most frequently discussed in the context of the study of the shadow economy in academic publications [18]. Words can be repeated among several extracted topics.

The results of content analysis for articles performed in the eLIBRARY.RU repository see in Table 5.

It can be noted that the largest share in the total number of studies is devoted to the issues of responsibility according to criminal law.

The results of the similarity index (Jaccard's coefficient) analysis among the selected topics are presented on the dendrogram (Figure 2).

The highest values of the similarity index have the following topics:

- "05 public danger" and "08 obligatory payments and fees; practice";
- "11 unreasonable benefit and optimization of taxes; schemes" and "12 planning and optimization of taxation; law";
- "04 components of tax offense" and "13 criminal and legal characteristics of crime".

Table 5

Extracted topics and keywords (articles from eLIBRARY.RU)

№	Name of the topic (formulated by authors)	Keywords	Frequency	Examples of articles
1	entrepreneur; personal income	entrepreneur; income; physical*; RF; person*; Code; budget; declaration	26	Konovod A. A. Prescribed data concerning the physical person in the investigation of tax evasion and (or) charges [19]
2	expertise; audit; investigation	process; expertise; indicators; audit; economic; investigation*; judicial	17	Ishchenko A. N., Salnikov K. Y., Suslov D. A. Problematic issues of use of results of tax audits at qualification of crimes under the articles of the Criminal Code of the Russian Federation providing responsibility for evasion of taxes and collecting, ways of their decision introduction of the automated systems [20]
3	value added tax; income tax	added; value; profit	10	Dubrovin V. V. Evasion of corporate profit tax and value-added tax: criminal responsibility and arbitration practice [21]
4	components of tax offense	commitment; fees; subject; part	12	Konovod A. A. Way of commission of crime as a component of the criminalistic characteristic of evasion of taxes and (or) collecting from the natural person [22]
5	public danger	danger; public; fees	18	Sereda I. M. Social danger of the crimes stipulated in articles 198, 199 of the Russian Criminal Law (Evasion of taxes and levies) [23]
6	techniques and methods of combating; causes of offenses	techniques; methods; combat*; causes; offense	18	Kalombo M. V. I., Shvetsova A. Problems of tax evasion and methods of their control [24]
7	materials; cases	materials; cases; RF	5	Konovod A. A. Features of definition of occasions and the basis for making decision on initiation of legal proceedings about evasion of taxes and (or) collecting from the natural person [25]
8	obligatory payments and fees; practice	payments; obligator*; practice; fees; jurisprudence	22	Akopdjanova M. O. Disposition of article 199 of the Criminal Code of Russia on responsibility for tax and levy evasion by organizations [26]
9	shadow economy; short-lived firms	firm*; economy; shadow*; short-lived	18	Vachugov I. V. The problem of limiting tax evasion in terms of specificity of terms and concepts [27]
10	responsibility in criminal law	responsibility; criminal*; law; crime*	61	Salkazanov A. E. Criminal liability for evasion of taxes and/or levies in the Russian Federation and foreign states as exemplified by organizational liability [28]
11	unreasonable benefit and optimization of taxes; schemes	benefit; unreasonable*; scheme; optimization	19	Kondratenko Y. V. On the problem of delimitation of the concept of optimization of taxation and tax evasion in the activities of the Russian Interior Ministry units for economic security and fight against corruption [29]
12	planning and optimization of taxation; law	planning; system; taxation*; optimization; law	40	Tegetaeva O. R. Tax mitigation VS tax avoidance [30]
13	criminal and legal characteristics of crime	crimin*; characteristic; crime; commitment	14	Perepelitsyn A. V. Content of the criminal characteristics of tax payment evasion by credit organizations [31]

Summarizing the results of the topics extraction, we got six main sets of topics demonstrating the interest for studying tax evasion in Russian (Table 6).

The largest interest displayed the set of topics, combined with different issues of law enforcement. In general, legal fo-

cus clearly dominate (according to specific gravity).

The issues of studying the shadow economy are also presented in the considered articles on tax evasion, but their share is relatively small in the total number of the articles.

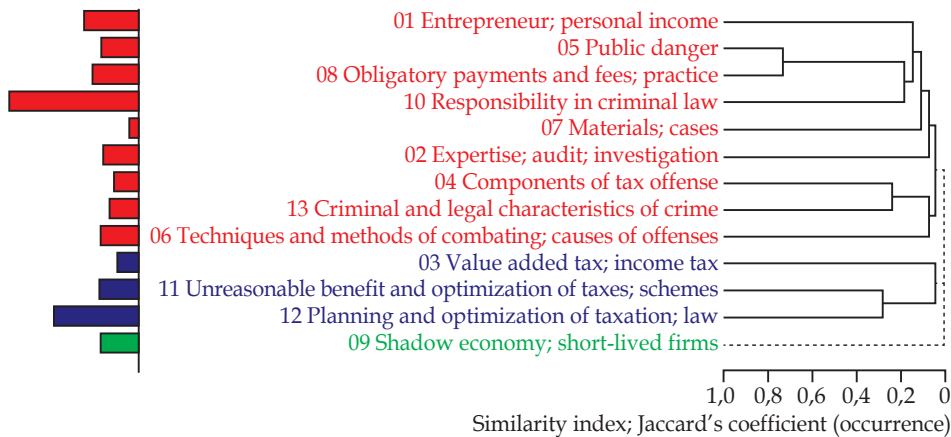


Figure 2. Similarity index for the extracted topics (articles from eLIBRARY.RU)

Table 6

Sets of topics (articles from eLIBRARY.RU)				
No	Topic name (formulated by authors)	Keywords	Frequency	%
	Criminological issues		87	31.1
10	responsibility in criminal law	responsibility; criminal*; law; crime*	61	21.8
13	criminal and legal characteristics of crime	crimin*; characteristic; crime; commitment	14	5.0
4	components of tax offense	commitment; fees; subject; part	12	4.3
	Legal and illegal techniques to reduce tax payments		59	21.1
11	unreasonable benefit and optimization of taxes; schemes	benefit; unreasonabl*; scheme; optimization	19	6.8
12	planning and optimization of taxation; law	planning; system; taxation*; optimization; law	40	14.3
	The public danger of the phenomenon; practice		40	14.3
5	public danger	danger; public; fees	18	6.4
8	obligatory payments and fees; practice	payments; obligator*; practice; fees; jurisprudence	22	7.9
	Counteraction against tax evasion		40	14.3
2	expertise; audit; investigation	process; expertise; indicators; audit; economic; investigat*; judicial	17	6.1
6	techniques and methods of combating; causes of offenses	techniques; methods; combat*; causes; offense	18	6.4
7	materials; cases	materials; cases; RF	5	1.8
	Types of taxes		36	12.9
1	entrepreneur; personal income	entrepreneur; income; physical*; RF; person*; Code; budget; declaration	26	9.3
3	value added tax; income tax	added; value; profit	10	3.6
	Shadow economy		18	6.4
9	shadow economy; short-lived	firm*; economy; shadow*; short-lived	18	6.4
	Number of codes mentioned, total		280	100.0

Table 7

Extracted topics and keywords (articles from RePEc и SSRN)

№	Name of the topic (formulated by authors)	Keywords	Frequency	Examples of articles
1	socio-demographic characteristics	variables; demographic; class; marital; education; competition; religion; study; status; employment; size; government; age; empirical; level	41	Preobragenskaya G., McGee R. W. A demographic study of Russian attitudes toward tax evasion [32]
2	behavioral economics	behavioral; economics; public	36	Hashimzade N., Myles G. D., Tran-Nam B. Applications of behavioural economics to tax evasion [33]
3	stigma; endogenous audit; prospect theory	reference; stigma; endogenous; prospect; audit; theory; level	33	Piolatto A., Rablen M. D. Prospect theory and tax evasion: a reconsideration of the Yitzhaki puzzle [34]
4	labor supply, risk behavior	supply; labor; risk; behavior	25	Doerrenberg P., Duncan D., Zeppenfeld C. Circumstantial risk: Impact of future tax evasion and labor supply opportunities on risk exposure [35]
5	self-reporting; effects	self; effects; reporting; information	22	Paetzold J., Winner H. Taking the high road? Compliance with commuter tax allowances and the role of evasion spillovers [36]
6	agent-based modeling	agent; based	21	Gulyás L., Máhr T., Tóth I. J. Factors to Curb Tax Evasion: Evidences from the TAXSIM Agent-Based Simulation Model [37]
7	economic policy uncertainty	uncertainty; policy; economic	20	Katz B. G., Owen J. Exploring tax evasion in the context of political uncertainty [38]
8	underground economy	economy; underground	20	Cebula R. J. Where Has The Currency Gone? And Why? The Underground Economy And Personal Income Tax Evasion In The US, 1970-2008 [39]
9	tax morale; tax avoidance	moral; avoidance; experiment; law	18	Blaufus K. et al. Does legality matter? The case of tax avoidance and evasion [40]
10	optimal taxation	optimal; consumption; taxes; dynamic; taxation	17	Goerke L. Relative consumption and tax evasion [41]
11	markets; finance	markets; finance; public	16	Ayyagari M., Demirgüç-Kunt A., Maksimovic V. Are innovating firms victims or perpetrators? Tax evasion, bribe payments, and the role of external finance in developing countries [42]
12	informal sector; corporate tax; financial frictions	informal; financial; corporate; frictions	15	Chiarini B., Ferrara M., Marzano E. Investment shocks, tax evasion and the consumption puzzle: a DSGE analysis with financial frictions [43]
13	fiscal fraud; VAT; sales	fraud; fiscal; vat; sales	13	Horga M.-G., Dănilă A. Tax evasion within European Union – VAT fraud [44]
14	ethics; gender	ethics; gender; age	8	Wei W., McGee R.W. Gender and attitude toward the ethics of tax evasion: a comparison of European and Asian views [45]
15	effect; crime	effect; crime	7	Argentiero A., Chiarini B., Marzano E. Tax evasion and economic crime. Empirical evidence for Italy [46]

The results of the analysis papers from RePEc and SSRN see in Table 7.

It can be noted that the largest share in the total number of papers is devoted to optimal taxation and moral issues of tax avoidance (and tax evasion); but so far as the keywords “evasion” and “tax” have been excluded from the content analysis in this study, we cannot extract them using our software for text analysis. However, we detect only this phrase when viewing encoded fragments). It is also possible to single out a separate topic issue of tax evasion for certain types of taxes – income tax and VAT (it is similar to the analysis results for Russian-language articles). There is a

group of topics devoted to the methods of tax evasion study, such as behavioral economics, prospect theory, and agent-based modeling.

The results of the similarity index analysis between selected topics are presented in the dendrogram (Figure 3).

The highest values of the similarity index have the following extracted topics:

- “02 behavioral economics” и “11 markets; finance”;
- “01 socio-demographic characteristics” и “14 ethics; gender”.

Summarizing the results of the topics extraction, we got 6 main groups of topics for studying tax evasion in publications from RePEc и SSRN (Table 8).

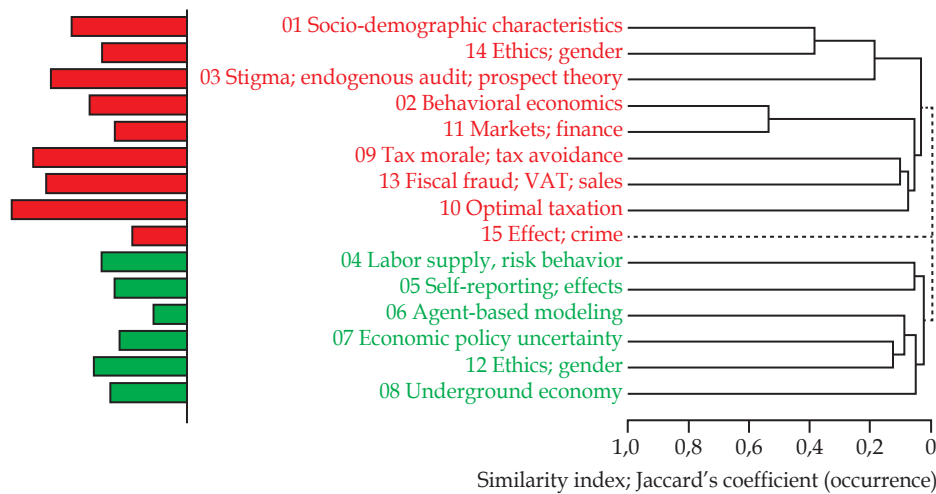


Figure 3. Similarity index for the extracted topics (papers from RePEc и SSRN)

Table 8

Sets of topics (articles from RePEc и SSRN)				
№	Topic name (formulated by authors)	Keywords	Frequency	%
<i>Socio-demographic and moral-ethical issues</i>			77	24.7
1	socio-demographic characteristics	variables; demographic; class; marital; education; competition; religion; study; status; employment; size; government; age; empirical; level	21	6.7
14	ethics; gender	ethics; gender; age	20	6.4
9	tax morale; tax avoidance	moral; avoidance; experiment; law	36	11.5
<i>Institutional environment and market conditions</i>			65	20.8
7	economic policy uncertainty	uncertainty; policy; economic	16	5.1
12	informal sector; corporate tax; financial frictions	informal; financial; corporate; frictions	22	7.1
11	markets; finance	markets; finance; public	7	2.2
4	labor supply, risk behavior	supply; labor; risk; behavior	20	6.4

End of the Table 8

№	Topic name (formulated by authors)	Keywords	Frequency	%
	<i>Theoretical approaches to studying</i>		48	15.4
2	behavioral economics	behavioral; economics; public	15	4.8
3	stigma; endogenous audit; prospect theory	reference; stigma; endogenous; prospect; audit; theory; level	25	8.0
6	agent-based modeling	agent; based	8	2.6
	<i>Tax evasion as a crime; its types</i>		46	14.7
13	fiscal fraud; VAT; sales	fraud; fiscal; vat; sales	33	10.6
15	effect; crime	effect; crime	13	4.2
	<i>Ways of counteraction</i>		58	18.6
10	optimal taxation	optimal; consumption; taxes; dynamic; taxation	41	13.1
5	self-reporting; effects	self; effects; reporting; information	17	5.4
	<i>Shadow economy</i>		18	5.8
8	underground economy	economy; underground	18	5.8
	<i>Number of codes mentioned, total</i>		312	100.0

The largest shares have sets of topics, which are combined by socio-demographic and moral-ethical issues (in this regard the phenomenon of social stigmatization as a moral and ethical factor of tax violations is also noteworthy).

The issues of studying the shadow economy is also presented in the considering articles on tax evasion, but their share is relatively small in the total number of articles.

Discussion

We should note that not all lists of keywords for the articles have been coded. The data on the number of non-encoded lists are given in Table 9.

Table 9

Number of non-coded lists of keywords

Datebase	eLIBRARY.RU	RePEc	SSRN
Number of articles that have a list of keywords	145	180	97
Number of non-encoded lists of keywords	19	49	20
Non-encoded lists of keywords, % form total number lists of keywords	13	27	21

Based on the analysis results, it is possible to formulate three possible reasons why a keyword list can be non-encoded:

- keywords have been excluded as foreign words;
- keywords have been excluded as “overly general” words;
- keywords are used less frequently than minimum frequency of a word usage from the dictionary.

In the latter case, we can assume that the discussed topics have not been widely popular so far due to the originality of the authors’ approaches. Perhaps some of these non-coded lists refer to the articles the topics of which will be developed later.

Comparing the structure of publications on the subject of “tax evasion”, we found that a significant role in the domestic publications have enforcement issues: disclosure the facts of tax evasion (31,1 + 21,1 = 52,2 %), that is much larger than the scope of consideration of the similar aspect in English-language articles (14,7 %). The issues of counteracting tax evasion and the aspects of the shadow economy are also common in both domestic and English literature. However, there is a noticeable difference in the following: we can say that Russian-language articles are more practically oriented toward the suppression of evasion activity, while in English-language articles the main attention is paid to the study

of the phenomenon itself and its causes ($14,7 + 24,7 + 20,8 = 60,2\%$). The results of the comparison are presented in Table 10.

Using the results of the conducted study, we can identify the main similarities and differences between English language and Russian scientific literature. The study reveals a certain disparity between the topics discussed in English language and Russian language scientific literature. The topics discussed in the majority of English language papers (socio-demographic and moral-ethical issues of tax evasion, institutional environment and market conditions of tax evasion, theoretical approaches to studying tax evasion) can be found in the publication in Russian much rarer. They focus mainly on criminological issues of tax evasion and matters of legislation.

In Russia, a great deal is written about taxation and tax evasion. But most publications in this field do not refer to scientific ones. The overwhelming number of books and articles are devoted to two topics: “how to pay taxes” or “how not to pay taxes”. The first topic includes normative materials on taxation (laws, instructions, explanations, comments, analysis of errors and arbitration practice, answers to questions). The second one concerns the works on tax planning and tax minimization.

In our opinion, this situation is due to several reasons:

1. The tax system is functioning in its current form during an insignificant period, which restricts the study of taxation sphere by the most general issues.

2. There is no demand for the applied research in the field of taxation by the state.

3. There is difficulty in obtaining information for the correspond research.

4. There is traditional silence about the issues related to the effectiveness of attracting and spending budget funds.

5. Many researchers consider that evaluation of taxation effectiveness is impossible, since it is a part of public policy, with all the ensuing political constraints and administrative problems.

The special aspects of studying tax evasion in Russia are also related to the fact that active studying activity of the tax system (and taxes themselves) in the Russian Federation began only in the late 90s of XX century.

This study reflects the fact that tax evasion is comprehended mostly as the criminal problem in Russia. It means that scientists and the society as a whole are not ready to analyze socio-demographic and moral-ethical issues of tax evasion. Besides, they are not ready to take into consideration institutional environment and market conditions to counteract tax evasion.

The results of the thematic analysis afford to determine the vector for further development to the researchers interested

Table 10

**Comparison of the topics groups for articles
from eLIBRARY.RU and articles from RePEc and SSRN**

Papers from eLIBRARY.RU	%	Papers from RePEc и SSRN	%
Criminological issues	31.1	Tax evasion as a crime; its types	14.7
Legal and illegal techniques to reduce tax payments	21.1		
Counteraction against tax evasion	14.3	Ways of counteraction	18.6
Shadow economy	6.4	Shadow economy	5.8
		Socio-demographic and moral-ethical issues	24.7
		Institutional environment and market conditions	20.8
The public danger of the phenomenon; practice	14.3		
Types of taxes	12.9		
		Theoretical approaches to studying	15.4
<i>Number of codes mentioned, total</i>	100.0	<i>Number of codes mentioned, total</i>	100.0

in the subject. For example, probably one of the most promising areas for domestic researchers is the development of those aspects of the scientific field which have not been studied on the basis of Russian

practice, however they are actively explored in the English-language literature: methodological issues; institutional environment; socio-demographic and moral-ethical aspects of evasion.

References

1. Allingham M. G., Sandmo A. Income tax evasion: a theoretical analysis. *Journal of Public Economics*, 1972, no. 1, pp. 323–338.
2. Becker G. Crime and punishment: an economic approach. *The Journal of Political Economy*, 1968, vol. 76, pp. 169–217.
3. Slemrod J., Yitzhaki S. Tax avoidance, evasion and administration. *Handbook of Public Economics*, 2002, vol. 3, pp. 1423–1470.
4. Popov I. Yu. Information support of innovation research projects of the university. *Vestnik Novosibirskogo gosudarstvennogo universiteta. Seriya Sotsial'no-ekonomicheskie nauki = Vestnik Novosibirsk State University. Series: Social and Economics Sciences*, 2015, vol. 15, no. 2, pp. 87–97. (In Russ.).
5. Leydesdorff L. Various methods for the mapping of science. *Scientometrics*, 1987, vol. 11, no. 5–6, pp. 295–324.
6. Zupic I., Čater T. Bibliometric methods in management and organization. *Organizational Research Methods*, 2015, vol. 18, no. 3, pp. 429–472.
7. Leydesdorff L., Welbers K. The semantic mapping of words and co-words in contexts. *Journal of Informetrics*, 2011, vol. 5, no. 3, pp. 469–475.
8. Krippendorff K. *Content analysis: An introduction to its methodology*. 2nd ed. Sage, 2004. 413 p.
9. Glänzel W. Bibliometric methods for detecting and analysing emerging research topics. *El profesional de la información*, 2012, vol. 21, no. 1, pp. 194–201.
10. Akoyev M. A. Mapping science and technology, forecasting research and development. In Akoyev M. A. (ed.) *Rukovodstvo po naukometrii: indikatory razvitiya nauki i tekhnologii* [Guide-line on scientometrics: Indicators of science and technology development]. Yekaterinburg, Ural University Publishing House, 2014, pp. 164–184. (In Russ.)
11. Ding Y., Chowdhury G. G., Foo S. Bibliometric cartography of information retrieval research by using co-word analysis. *Information Processing and Management*, 2001, vol. 37, no. 817, pp. 842.
12. Sedighi M. Application of word co-occurrence analysis method in mapping of the scientific fields (case study: the field of Informetrics). *Library Review*, 2016, vol. 65, no. 1/2, pp. 52–64.
13. Chen X. et al. Mapping the research trends by co-word analysis based on keywords from funded project. *Procedia Computer Science*, 2016, vol. 91, pp. 547–555.
14. Kirby G. Zipf's law. *UK Journal of Naval Science*, 1985, vol. 10, no. 3, pp. 180–185.
15. Salton G., Buckley C. Term-weighting approaches in automatic text retrieval. *Information processing & management*, 1988, vol. 24, no. 5, pp. 513–523.
16. Miner G. et al. Clustering Words and Documents. In *Practical text mining and statistical analysis for non-structured text data applications*. Academic Press, 2012, pp. 959–966.
17. Kaiser H. F. The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, 1958, vol. 23, no. 3, pp. 187–200.
18. Braam R. R., Moed H. F., Van Raan A. F. J. Mapping of science by combined co-citation and word analysis I. Structural aspects. *Journal of the American Society for information science*, 1991, vol. 42, no. 4, pp. 233–251.
19. Konovod A. A. Prescribed data concerning the physical person in the investigation of tax evasion and (or) charges. *Obshchestvennye nauki = Social Sciences*, 2016, no. 1, pp. 312–317. (In Russ.).
20. Ishchenko A. N., Salnikov K. Y., Suslov D. A. Problematic issues of use of results of tax audits at qualification of crimes under the articles of the Criminal Code of the Russian Federation providing responsibility for evasion of taxes and collecting, ways of their decision introduction of the automated systems. *Ekonomika i predprinimatelstvo = Journal of Economy and Entrepreneurship*, 2015, no. 3–2, pp. 628–633. (In Russ.).
21. Dubrovin V. V. Evasion of corporate profit tax and value-added tax: criminal responsibility and arbitration practice. *Biblioteka ugolovnogo prava i kriminologii = Library of Criminal Law and Criminology*, 2016, no. 4, pp. 64–70. (In Russ.).
22. Konovod A. A. Way of commission of crime as a component of the criminalistic characteristic of evasion of taxes and (or) collecting from the natural person. *Vestnik Dalnevostochnogo*

yuridicheskogo instituta MVD Rossii = Vestnik of Far Eastern Law Institute of the Ministry of the Interior of Russia, 2016, no. 2, pp. 169–174. (In Russ.).

23. Sereda I. M. Social danger of the crimes stipulated in articles 198, 199 of the Russian Criminal Law (Evasion of taxes and levies). *Prolog: zhurnal o prave* = Prologue: Law Journal, 2016, no. 1, p. 12–26. (In Russ.).

24. Kalombo M. V. I., Shvetsova A. Problems of tax evasion and methods of their control. *Nauka i biznes: puti razvitiya* = Science and Business: Ways of Development, 2014, no. 1, pp. 74–76. (In Russ.).

25. Konovod A. A. Features of definition of occasions and the basis for making decision on initiation of legal proceedings about evasion of taxes and (or) collecting from the natural person. *Rassledovanie prestupleniy: problemy i puti ih resheniya* = Criminal Investigation: Problems and Ways of Their Solution, 2015, no 4 (10), pp. 116–119. (In Russ.).

26. Akopdjanova M. O. Disposition of article 199 of the Criminal Code of Russia on responsibility for tax and levy evasion by organizations. *Nalogi i nalogooblozhenie* = Taxes and Taxation, 2013, no 2, pp. 128–136. (In Russ.).

27. Vachugov I. V. The problem of limiting tax evasion in terms of specificity of terms and concepts. *Nalogi i nalogooblozhenie* = Taxes and Taxation, 2016, no. 3, pp. 279–291. (In Russ.).

28. Salkazanov A. E. Criminal liability for evasion of taxes and/or levies in the Russian Federation and foreign states as exemplified by organizational liability. *Nalogi i nalogooblozhenie* = Taxes and Taxation, 2013, no. 11, pp. 852–859. (In Russ.).

29. Kondratenko Y. V. On the problem of delimitation of the concept of optimization of taxation and tax evasion in the activities of the Russian Interior Ministry units for economic security and fight against corruption. *Yuridicheskaya nauka i praktika: Vestnik Nizhegorodskoy akademii MVD Rossii* = Legal science and practice. Bulletin of Nizhny Novgorod Academy of the Ministry of Internal Affairs of the Russian Federation, 2015, no. 1 (29), pp. 275–279. (In Russ.).

30. Tegetaeva O. R. Tax mitigation VS tax avoidance. *Nalogi i nalogooblozhenie* = Taxes and Taxation, 2014, no. 10, pp. 889–893. (In Russ.).

31. Perepelitsyn A. V. Content of the criminal characteristics of tax payment evasion by credit organizations. *Gumanitarnye i sotsialno-ekonomicheskie nauki* = The Humanities and Social-Economic Sciences, 2013, no. 2, pp. 69–72. (In Russ.).

32. Preobragenskaya G., McGee R. W. A demographic study of Russian attitudes toward tax evasion. *Journal of Accounting, Ethics and Public Policy*, 2016, vol. 17, no. 1, pp. 137–207.

33. Hashimzade N., Myles G.D., Tran-Nam B. Applications of behavioural economics to tax evasion. *Journal of Economic Surveys*, 2013, vol. 27, no. 5, pp. 941–977.

34. Piolatto A., Rablen M. D. Prospect theory and tax evasion: a reconsideration of the Yitzhaki puzzle. *Theory and Decision*, 2017, vol. 82, no. 4, pp. 543–565.

35. Doerrenberg P., Duncan D., Zeppenfeld C. Circumstantial risk: Impact of future tax evasion and labor supply opportunities on risk exposure. *Journal of Economic Behavior & Organization*, 2015, vol. 109, pp. 85–100.

36. Paetzold J., Winner H. Taking the high road? Compliance with commuter tax allowances and the role of evasion spillovers. *Journal of Public Economics*, 2016, vol. 143, pp. 1–14.

37. Gulyás L., Máhr T., Tóth I. J. *Factors to Curb Tax Evasion: Evidences from the TAXSIM Agent-Based Simulation Model*. Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, 2015, no. 1521.

38. Katz B. G., Owen J. Exploring tax evasion in the context of political uncertainty. *Economic Systems*, 2013, vol. 37, no. 2, pp. 141–154.

39. Cebula R. J. Where Has The Currency Gone? And Why? The Underground Economy and Personal Income Tax Evasion In The US, 1970–2008. *Review of Economic Analysis*, 2014, vol. 6, no. 1, pp. 36–52.

40. Blaufus K. et al. Does legality matter? The case of tax avoidance and evasion. *Journal of Economic Behavior & Organization*, 2016, vol. 127, pp. 182–206.

41. Goerke L. Relative consumption and tax evasion. *Journal of Economic Behavior & Organization*, 2013, vol. 87, pp. 52–65.

42. Ayyagari M., Demirgüç-Kunt A., Maksimovic V. *Are innovating firms victims or perpetrators? Tax evasion, bribe payments, and the role of external finance in developing countries*. World Bank Policy Research Working Paper Series, 2010, no. 5389, 55 p.

43. Chiarini B., Ferrara M., Marzano E. *Investment shocks, tax evasion and the consumption puzzle: a DSGE analysis with financial frictions*. CESifo Working Paper, 2016, no. 6015.

44. Horga M.-G., Dănilă A. Tax evasion within European Union – VAT fraud. “Ovidius” University Annals, *Economic Sciences Series*, 2014, Special Issue – “Economy and society”, vol. 14, pp. 26–31.

45. Wei W., McGee R.W. Gender and attitude toward the ethics of tax evasion: a comparison of European and Asian views. *Journal of Accounting, Ethics and Public Policy*, 2015, vol. 16, no. 4, p. 735–764.

46. Argentiero A., Chiarini B., Marzano E. *Tax evasion and economic crime. Empirical evidence for Italy*. CESifo Working Paper, 2015, no. 5497, 36 p.

Acknowledgements

This work was financially supported by the RFFI Project № 17-22-01002/17 “Elaboration the Tax Experiments in the System of Tax Avoidance Counteraction for the Economic Security Provision in the Russian Federation and Belarus”

Благодарности

Статья подготовлена при финансовой поддержке гранта РФФИ № 17-22-01002/17 «Методология изучения уклонения от уплаты налогов путем проведения налоговых экспериментов в системе обеспечения экономической безопасности России и Беларуси»

Authors

Ekaterina N. Nevzorova — PhD in Economics, Associate Professor, Department of Economics and Public Administration, Baikal State University, Irkutsk, Russia (11 Lenin St., 664003, Irkutsk, Russia); ORCID: [0000-0002-4802-5448](https://orcid.org/0000-0002-4802-5448); e-mail: nevzorova_kat@mail.ru

Anna P. Kireenko — Doctor of Economics, Professor, Head of the Department of Taxation and Customs, Baikal State University, Irkutsk, Russia (11 Lenin St., 664003, Irkutsk, Russia); ORCID: [0000-0002-7860-5929](https://orcid.org/0000-0002-7860-5929); e-mail: kireenkoap@bgu.ru

Roman A. Sklyarov — PhD Student, Department of Taxation and Customs, Baikal State University, Irkutsk, Russia (11 Lenin St., 664003, Irkutsk, Russia); e-mail: roman48_67@mail.ru

Информация об авторах

Невзорова Екатерина Николаевна — кандидат экономических наук, доцент, кафедра экономики и государственного управления, Байкальский государственный университет, г. Иркутск, Россия (664003, г. Иркутск, ул. Ленина, 11); ORCID: [0000-0002-4802-5448](https://orcid.org/0000-0002-4802-5448); e-mail: nevzorova_kat@mail.ru

Киреевко Анна Павловна — доктор экономических наук, профессор, заведующая кафедрой налогов и таможенного дела, Байкальский государственный университет, г. Иркутск, Россия (664003, г. Иркутск, ул. Ленина, 11); ORCID: [0000-0002-7860-5929](https://orcid.org/0000-0002-7860-5929); e-mail: kireenkoap@bgu.ru

Скляров Роман Андреевич — аспирант, кафедра налогов и таможенного дела, Байкальский государственный университет, г. Иркутск, Россия (664003, г. Иркутск, ул. Ленина, 11); e-mail: roman48_67@mail.ru

For citation

Nevzorova E. N., Kireenko A. P., Sklyarov R. A. Bibliometric Analysis of the Literature on Tax Evasion in Russia and Foreign Countries. *Journal of Tax Reform*, 2017, vol. 3, no. 2, pp. 115–130. DOI: [10.15826/jtr.2017.3.2.035](https://doi.org/10.15826/jtr.2017.3.2.035)

Для цитирования

Невзорова Е. Н. Библиометрический анализ литературы по уклонению от уплаты налогов в России и зарубежных странах / Е. Н. Невзорова, А. П. Киреевко, Р. А. Скляров // *Journal of Tax Reform*. — 2017. — Т. 3, № 2. — С. 115–130. — DOI: [10.15826/jtr.2017.3.2.035](https://doi.org/10.15826/jtr.2017.3.2.035)

Article info

Received May 25, 2017; accepted July 5, 2017

Информация о статье

Дата поступления 25 мая 2017 г.; дата принятия к печати 5 июля 2017 г.